

RECEIVED Page 1 of 7 #8

NOV 13 2001

TECH CENTER 1600/2900

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/770,643A

DATE: 09/10/2001

TIME: 08:33:19

Input Set : A:\LEX-0122-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I770643A.raw

RECEIVED

NOV 13 2001

TECH CENTER 1600/2900

ENTERED

P. 5

4 <110> APPLICANT: Turner, C. Alexander Jr.
5 Hilbun, Erin
6 Donoho, Gregory
7 Scoville, John
8 Wattler, Frank
9 Friedrich, Glenn
10 Abuin, Alejandro
11 Zambrowicz, Brian
12 Sands, Arthur T.

14 <120> TITLE OF INVENTION: Novel Human Neurexin-like Proteins and Polynucleotides
Encoding the

15 Same
17 <130> FILE REFERENCE: LEX-0166-PRV
C--> 19 <140> CURRENT APPLICATION NUMBER: US/09/770,643A
C--> 19 <141> CURRENT FILING DATE: 2001-01-26
19 <160> NUMBER OF SEQ ID NOS: 31
21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 3924
25 <212> TYPE: DNA
26 <213> ORGANISM: homo sapiens
28 <400> SEQUENCE: 1

29	atggattctt	taccacggct	gaccagcggt	ttgactttgc	tgttctctgg	cttgtggcat	60
30	ttaggattaa	cagcgacaaa	ctacaactgt	gatgatccac	tagcatccct	gctctctcca	120
31	atggcttttt	ccagttcctc	agacctcact	ggcactcaca	gccagctca	actcaactgg	180
32	agagttggaa	ctggcggttg	gtccccagca	gattccaatg	ctcaacagtg	gtccagatg	240
33	gacctgggaa	acagagtaga	gattacagca	gtggccacgc	agggaagata	cggaagctct	300
34	gactgggtga	cgagttacag	cctgatgttc	agtgcacacg	gacgcaactg	gaaacagtac	360
35	aaacaagaag	acagcatctg	gacctttgca	ggaaacatga	atgctgacag	cgtggtgcac	420
36	cacaagctat	tgcactcagt	gagagcccga	tttgttcgct	ttgtgcccct	ggaatggaat	480
37	cccagtggga	agattggcat	gagagtcgag	gtctacggat	gttcctataa	atcagacggt	540
38	gctgactttg	atggccgaag	ctcacttctg	tacaggttca	atcagaagtt	gatgagtact	600
39	ctcaaagatg	tgatctccct	gaagttcaag	agcatgcaag	gagatggggt	cctgttccat	660
40	ggagaagggtc	agcgtggaga	ccacatcacc	ttggaactcc	agaaggggag	gctcgcccta	720
41	cacctcaatt	tgggtgacag	caaagcgcg	ctcagcagca	gcttgccctc	tgccaccctg	780
42	ggcagcctcc	tggatgacca	gcactggcac	tyggtcctca	ttgagcgggt	gggcaagcag	840
43	gtgaacttca	cgggtggaaa	gcacacacag	cacttccgca	ccaagggcga	gacggatgcc	900
44	ttagacattg	actatgagct	tagtttttga	ggaattccag	taccaggaaa	acctgggacc	960
45	tttttaaaaga	aaaacttcca	tggatgcac	gaaaaccttt	actacaatgg	agtaaata	1020
46	attracctgg	ctaagagacg	aaagcatcag	atctatactg	tgggcaatgt	cactttttcc	1080
47	tgtccgaac	cacagattgt	gcccatacaca	tttgtyaact	ccagcggcag	ctatttgctg	1140
48	ctgcccggca	ccccccaaat	tgatgggctc	tcagtgaagt	tccagtttcg	aacatggaac	1200
49	aaggatgggtc	tgtttctgtc	cacagagctg	tctgagggtc	cggaaccct	gctgctgagc	1260
50	ctggagggtg	gaatcctgag	actcgtgatt	cagaaaatga	cagaacgcgt	agctgaaatc	1320
51	ctcacaggca	gcaacttgaa	tgatggcctg	tggcactcgg	ttagcatcaa	cgccaggagg	1380
52	aaccgcatca	cgctcactct	ggatgatgaa	gcagcacccc	cggctccaga	cagcacttgg	1440
53	gtgcagattt	attctggaaa	tagctactat	tttgagggtg	gccccgacaa	tctcaccgat	1500
54	tcccaatggt	taaatcccat	taaggctttc	caaggctgca	tgaggctcat	ctttattgat	1560

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/770,643A

DATE: 09/10/2001

TIME: 08:33:49

Input Set : A:\LEX-0122-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I770643A.raw

```

55 aaccagccca aggacctcat ttcagttcag caaggttccc tggggaattt tagtgattta 1620
56 cacattgac tgtgtagcat caaagacagg tgtttgccaa actactgtga acatggagga 1680
57 agctgctccc agtcctggac taccttctat tgtaactgca gtgacacaag ttacactggt 1740
58 gccacctgcc acaactccat ctacgagcaa tcctgcgagg tgtacaggca ccaggggaat 1800
59 acagccggct tcttctacat cgactcagat ggcagcggcc cactgggacc tctccagggtg 1860
60 tactgcaata tcaactgagga caagatctgg acatcagtgc agcacacaa tacagagctg 1920
61 acccgagtgc ggggcgctaa ccctgagaag ccctatgcc tggccttggc ctacgggggc 1980
62 agcatggaac agctggaggc cgtgatcgac ggctctgagc actgtgagca ggagggtggc 2040
63 taccactgca ggagggtccc cctgctcaac acgccggatg gaacaccatt tacctggtgg 2100
64 attgggcggt ccaatgaaag gcacccttac tggggagggt cccctcctgg ggtccagcag 2160
65 tgtgagtgtg gcctagacga gagctgcctg gacattcagc acttttgcaa ttgcgacgct 2220
66 gacaaggatg aatggacaaa tgatactggc tttctttcct tcaaagacca cttgcctgtc 2280
67 actcagatag ttatcactga taccgacaga tcaaactcag aagccgcttg gagaattggt 2340
68 cccttgcggt gctatggtga ccgacgcttc tggaacgccg tctcatttta tacagaagcc 2400
69 tcttacctcc actttcctac ctcccatgcy gaattcagt cccgatatttc cttctttttt 2460
70 aaaaccacag cattatccgg agttttccta gaaaatcttg gcattaaaga cttcattcga 2520
71 ctcgaaataa gctctccttc agagatcacc tttgccatcg atgttgggaa tggctcctgtg 2580
72 gagcttgtag tccagtctcc ttctcttctg aatgacaacc aatggcacta tgtccgggct 2640
73 gagaggaacc tcaaggagac ctccctgcag gtggacaacc ttccaaggag caccagggag 2700
74 acgtcggagg agggccattt tcgactgcag ctgaacagcc agttgtttgt agggggaacg 2760
75 tcatccagac agaaaggctt cctaggatgc attcgtcctt tacacttgaa tggacagaaa 2820
76 atggacctgg aagagagggc aaaggtcaca tctggagtca ggccaggctg ccccgccac 2880
77 tgcagcagct acggcagcat ctgccacaac gggggcaagt gtgtggagaa gcacaatggc 2940
78 tacctgtgtg attgcaccaa ttaccttat gaagggccct ttgcaaaaa agaggtttct 3000
79 gctgtttttg aggtggcac gtcggttact tacatgtttc aagaacccta tctgtgacc 3060
80 aagaatataa gcctctcatc ctcaagctatt tacacagatt cagctccatc caaggaaaac 3120
81 attgcactta gctttgtgac aaccagga cccagtcttt tgctctttat caattcttct 3180
82 tctcaggact tcgtggttgt tctgctctgc aagaatggaa gcttacagggt tcgctatcac 3240
83 ctaaacaagg aagaaacca tgtattcacc attgatgcag ataactttgc taacagaagg 3300
84 atgcaccact tgaagattaa ccgagaggga agagagctta ccattcagat ggaccagcaa 3360
85 cttcgactca gttataactt ctctccggaa gtagagttca gggttataag gtcactcacc 3420
86 ttgggcaaag tcacagagaa tcttggtttg gattctgaag ttgctaaagc aaatgccatg 3480
87 ggttttgctg gatgcatgtc ttccgtccag tacaaccaca tagcaccact gaaggctgcc 3540
88 ctgcgccatg ccactgtcgc gcctgtgact gtccatggga ccttgacgga atccagctgt 3600
89 ggcttcatgg tggactcaga tgtgaatgca gtgaccacgg tgcattcttc atcagatcct 3660
90 tttgggaaga cagatgagcg ggaaccactc acaaatgctg ttcgaagtga ttcggcagtc 3720
91 atcggagggg tgatagcagt ggtgatattc atcatcttct gtatcatcgg catcatgacc 3780
92 cggttcctct accagcacia gcagtcacat cgtacgagcc agatgaagga gaaggaatat 3840
93 ccagaaaatt tggacagttc cttcagaaat gaaattgact tgcaaaacac agtgagcgag 3900
94 tgtaaacggg aatatttcat ctga 3924

```

96 <210> SEQ ID NO: 2

97 <211> LENGTH: 1307

98 <212> TYPE: PRT

99 <213> ORGANISM: homo sapiens

101 <220> FEATURE:

102 <221> NAME/KEY: VARIANT

103 <222> LOCATION: (1)...(1307)

104 <223> OTHER INFORMATION: Xaa = Any Amino Acid

106 <400> SEQUENCE: 2

RAW SEQUENCE LISTING

DATE: 09/10/2001

PATENT APPLICATION: US/09/770,643A

TIME: 08:33:49

Input Set : A:\LEX-0122-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I770643A.raw

```

107 Met Asp Ser Leu Pro Arg Leu Thr Ser Val Leu Thr Leu Leu Phe Ser
108 1 5 10 15
109 Gly Leu Trp His Leu Gly Leu Thr Ala Thr Asn Tyr Asn Cys Asp Asp
110 20 25 30
111 Pro Leu Ala Ser Leu Leu Ser Pro Met Ala Phe Ser Ser Ser Asp
112 35 40 45
113 Leu Thr Gly Thr His Ser Pro Ala Gln Leu Asn Trp Arg Val Gly Thr
114 50 55 60
115 Gly Gly Trp Ser Pro Ala Asp Ser Asn Ala Gln Gln Trp Leu Gln Met
116 65 70 75 80
117 Asp Leu Gly Asn Arg Val Glu Ile Thr Ala Val Ala Thr Gln Gly Arg
118 85 90 95
119 Tyr Gly Ser Ser Asp Trp Val Thr Ser Tyr Ser Leu Met Phe Ser Asp
120 100 105 110
121 Thr Gly Arg Asn Trp Lys Gln Tyr Lys Gln Glu Asp Ser Ile Trp Thr
122 115 120 125
123 Phe Ala Gly Asn Met Asn Ala Asp Ser Val Val His His Lys Leu Leu
124 130 135 140
125 His Ser Val Arg Ala Arg Phe Val Arg Phe Val Pro Leu Glu Trp Asn
126 145 150 155 160
127 Pro Ser Gly Lys Ile Gly Met Arg Val Glu Val Tyr Gly Cys Ser Tyr
128 165 170 175
129 Lys Ser Asp Val Ala Asp Phe Asp Gly Arg Ser Ser Leu Leu Tyr Arg
130 180 185 190
131 Phe Asn Gln Lys Leu Met Ser Thr Leu Lys Asp Val Ile Ser Leu Lys
132 195 200 205
133 Phe Lys Ser Met Gln Gly Asp Gly Val Leu Phe His Gly Glu Gly Gln
134 210 215 220
135 Arg Gly Asp His Ile Thr Leu Glu Leu Gln Lys Gly Arg Leu Ala Leu
136 225 230 235 240
137 His Leu Asn Leu Gly Asp Ser Lys Ala Arg Leu Ser Ser Ser Leu Pro
138 245 250 255
W--> 139 Ser Ala Thr Leu Gly Ser Leu Leu Asp Asp Gln His Trp His Xaa Val
140 260 265 270
141 Leu Ile Glu Arg Val Gly Lys Gln Val Asn Phe Thr Val Asp Lys His
142 275 280 285
143 Thr Gln His Phe Arg Thr Lys Gly Glu Thr Asp Ala Leu Asp Ile Asp
144 290 295 300
145 Tyr Glu Leu Ser Phe Gly Gly Ile Pro Val Pro Gly Lys Pro Gly Thr
146 305 310 315 320
147 Phe Leu Lys Lys Asn Phe His Gly Cys Ile Glu Asn Leu Tyr Tyr Asn
148 325 330 335
W--> 149 Gly Val Asn Ile Ile Xaa Leu Ala Lys Arg Arg Lys His Gln Ile Tyr
150 340 345 350
151 Thr Val Gly Asn Val Thr Phe Ser Cys Ser Glu Pro Gln Ile Val Pro
152 355 360 365
153 Ile Thr Phe Val Asn Ser Ser Gly Ser Tyr Leu Leu Leu Pro Gly Thr
154 370 375 380
155 Pro Gln Ile Asp Gly Leu Ser Val Ser Phe Gln Phe Arg Thr Trp Asn

```

RAW SEQUENCE LISTING

DATE: 09/10/2001

PATENT APPLICATION: US/09/770,643A

TIME: 08:33:49

Input Set : A:\LEX-0122-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I770643A.raw

156	385				390				395				400			
157	Lys	Asp	Gly	Leu	Leu	Leu	Ser	Thr	Glu	Leu	Ser	Glu	Gly	Ser	Gly	Thr
158					405				410						415	
159	Leu	Leu	Leu	Ser	Leu	Glu	Gly	Gly	Ile	Leu	Arg	Leu	Val	Ile	Gln	Lys
160				420					425						430	
161	Met	Thr	Glu	Arg	Val	Ala	Glu	Ile	Leu	Thr	Gly	Ser	Asn	Leu	Asn	Asp
162			435					440					445			
163	Gly	Leu	Trp	His	Ser	Val	Ser	Ile	Asn	Ala	Arg	Arg	Asn	Arg	Ile	Thr
164		450					455					460				
165	Leu	Thr	Leu	Asp	Asp	Glu	Ala	Ala	Pro	Pro	Ala	Pro	Asp	Ser	Thr	Trp
166	465					470					475					480
167	Val	Gln	Ile	Tyr	Ser	Gly	Asn	Ser	Tyr	Tyr	Phe	Gly	Gly	Cys	Pro	Asp
168				485					490						495	
169	Asn	Leu	Thr	Asp	Ser	Gln	Cys	Leu	Asn	Pro	Ile	Lys	Ala	Phe	Gln	Gly
170				500					505						510	
171	Cys	Met	Arg	Leu	Ile	Phe	Ile	Asp	Asn	Gln	Pro	Lys	Asp	Leu	Ile	Ser
172			515					520					525			
173	Val	Gln	Gln	Gly	Ser	Leu	Gly	Asn	Phe	Ser	Asp	Leu	His	Ile	Asp	Leu
174		530					535					540				
175	Cys	Ser	Ile	Lys	Asp	Arg	Cys	Leu	Pro	Asn	Tyr	Cys	Glu	His	Gly	Gly
176	545					550					555					560
177	Ser	Cys	Ser	Gln	Ser	Trp	Thr	Thr	Phe	Tyr	Cys	Asn	Cys	Ser	Asp	Thr
178				565					570						575	
179	Ser	Tyr	Thr	Gly	Ala	Thr	Cys	His	Asn	Ser	Ile	Tyr	Glu	Gln	Ser	Cys
180				580					585						590	
181	Glu	Val	Tyr	Arg	His	Gln	Gly	Asn	Thr	Ala	Gly	Phe	Phe	Tyr	Ile	Asp
182			595					600					605			
183	Ser	Asp	Gly	Ser	Gly	Pro	Leu	Gly	Pro	Leu	Gln	Val	Tyr	Cys	Asn	Ile
184		610					615					620				
185	Thr	Glu	Asp	Lys	Ile	Trp	Thr	Ser	Val	Gln	His	Asn	Asn	Thr	Glu	Leu
186	625					630					635					640
187	Thr	Arg	Val	Arg	Gly	Ala	Asn	Pro	Glu	Lys	Pro	Tyr	Ala	Met	Ala	Leu
188				645						650					655	
189	Asp	Tyr	Gly	Gly	Ser	Met	Glu	Gln	Leu	Glu	Ala	Val	Ile	Asp	Gly	Ser
190				660					665						670	
191	Glu	His	Cys	Glu	Gln	Glu	Val	Ala	Tyr	His	Cys	Arg	Arg	Ser	Arg	Leu
192			675					680					685			
193	Leu	Asn	Thr	Pro	Asp	Gly	Thr	Pro	Phe	Thr	Trp	Trp	Ile	Gly	Arg	Ser
194		690					695						700			
195	Asn	Glu	Arg	His	Pro	Tyr	Trp	Gly	Gly	Ser	Pro	Pro	Gly	Val	Gln	Gln
196	705					710					715					720
197	Cys	Glu	Cys	Gly	Leu	Asp	Glu	Ser	Cys	Leu	Asp	Ile	Gln	His	Phe	Cys
198				725					730						735	
199	Asn	Cys	Asp	Ala	Asp	Lys	Asp	Glu	Trp	Thr	Asn	Asp	Thr	Gly	Phe	Leu
200				740					745					750		
201	Ser	Phe	Lys	Asp	His	Leu	Pro	Val	Thr	Gln	Ile	Val	Ile	Thr	Asp	Thr
202			755					760						765		
203	Asp	Arg	Ser	Asn	Ser	Glu	Ala	Ala	Trp	Arg	Ile	Gly	Pro	Leu	Arg	Cys
204		770					775					780				

RAW SEQUENCE LISTING

DATE: 09/10/2001

PATENT APPLICATION: US/09/770,643A

TIME: 08:33:49

Input Set : A:\LEX-0122-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I770643A.raw

205	Tyr	Gly	Asp	Arg	Arg	Phe	Trp	Asn	Ala	Val	Ser	Phe	Tyr	Thr	Glu	Ala
206	785					790					795					800
207	Ser	Tyr	Leu	His	Phe	Pro	Thr	Phe	His	Ala	Glu	Phe	Ser	Ala	Asp	Ile
208					805					810					815	
209	Ser	Phe	Phe	Phe	Lys	Thr	Thr	Ala	Leu	Ser	Gly	Val	Phe	Leu	Glu	Asn
210					820				825					830		
211	Leu	Gly	Ile	Lys	Asp	Phe	Ile	Arg	Leu	Glu	Ile	Ser	Ser	Pro	Ser	Glu
212			835					840					845			
213	Ile	Thr	Phe	Ala	Ile	Asp	Val	Gly	Asn	Gly	Pro	Val	Glu	Leu	Val	Val
214		850					855					860				
215	Gln	Ser	Pro	Ser	Leu	Leu	Asn	Asp	Asn	Gln	Trp	His	Tyr	Val	Arg	Ala
216	865					870					875					880
217	Glu	Arg	Asn	Leu	Lys	Glu	Thr	Ser	Leu	Gln	Val	Asp	Asn	Leu	Pro	Arg
218					885					890					895	
219	Ser	Thr	Arg	Glu	Thr	Ser	Glu	Glu	Gly	His	Phe	Arg	Leu	Gln	Leu	Asn
220				900					905					910		
221	Ser	Gln	Leu	Phe	Val	Gly	Gly	Thr	Ser	Ser	Arg	Gln	Lys	Gly	Phe	Leu
222			915					920					925			
223	Gly	Cys	Ile	Arg	Ser	Leu	His	Leu	Asn	Gly	Gln	Lys	Met	Asp	Leu	Glu
224		930					935					940				
225	Glu	Arg	Ala	Lys	Val	Thr	Ser	Gly	Val	Arg	Pro	Gly	Cys	Pro	Gly	His
226	945					950				955						960
227	Cys	Ser	Ser	Tyr	Gly	Ser	Ile	Cys	His	Asn	Gly	Gly	Lys	Cys	Val	Glu
228					965					970					975	
229	Lys	His	Asn	Gly	Tyr	Leu	Cys	Asp	Cys	Thr	Asn	Ser	Pro	Tyr	Glu	Gly
230				980					985					990		
231	Pro	Phe	Cys	Lys	Lys	Glu	Val	Ser	Ala	Val	Phe	Glu	Ala	Gly	Thr	Ser
232			995					1000					1005			
233	Val	Thr	Tyr	Met	Phe	Gln	Glu	Pro	Tyr	Pro	Val	Thr	Lys	Asn	Ile	Ser
234		1010					1015					1020				
235	Leu	Ser	Ser	Ser	Ala	Ile	Tyr	Thr	Asp	Ser	Ala	Pro	Ser	Lys	Glu	Asn
236	1025					1030					1035					1040
237	Ile	Ala	Leu	Ser	Phe	Val	Thr	Thr	Gln	Ala	Pro	Ser	Leu	Leu	Leu	Phe
238					1045					1050					1055	
239	Ile	Asn	Ser	Ser	Ser	Gln	Asp	Phe	Val	Val	Val	Leu	Leu	Cys	Lys	Asn
240					1060				1065					1070		
241	Gly	Ser	Leu	Gln	Val	Arg	Tyr	His	Leu	Asn	Lys	Glu	Glu	Thr	His	Val
242			1075					1080					1085			
243	Phe	Thr	Ile	Asp	Ala	Asp	Asn	Phe	Ala	Asn	Arg	Arg	Met	His	His	Leu
244		1090					1095					1100				
245	Lys	Ile	Asn	Arg	Glu	Gly	Arg	Glu	Leu	Thr	Ile	Gln	Met	Asp	Gln	Gln
246	1105					1110					1115				1120	
247	Leu	Arg	Leu	Ser	Tyr	Asn	Phe	Ser	Pro	Glu	Val	Glu	Phe	Arg	Val	Ile
248					1125					1130					1135	
249	Arg	Ser	Leu	Thr	Leu	Gly	Lys	Val	Thr	Glu	Asn	Leu	Gly	Leu	Asp	Ser
250					1140					1145				1150		
251	Glu	Val	Ala	Lys	Ala	Asn	Ala	Met	Gly	Phe	Ala	Gly	Cys	Met	Ser	Ser
252			1155					1160					1165			
253	Val	Gln	Tyr	Asn	His	Ile	Ala	Pro	Leu	Lys	Ala	Ala	Leu	Arg	His	Ala

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/770,643A

DATE: 09/10/2001

TIME: 08:33:50

Input Set : A:\LEX-0122-USA SEQLIST.txt

Output Set: N:\CRF3\09102001\I770643A.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application No

L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:657 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10

L:742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12

L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12

L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

L:987 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16

L:997 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16

L:1135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18

L:1284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20

L:1294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20

L:1449 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22